

SPHÆRIUM NITIDUM, CL., A SIBERIAN FRESHWATER MUSSEL,
IN SWEDEN.

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ON a revision of the Swedish freshwater mussels of the family Sphæriidæ it appeared that the genus *Sphærium* (excl. *Musculium*) is represented in the Swedish fauna by two species, *S. corneum*, L. (comprising also *S. draparnaldi*, *ovale*, and *mamillanum*) and the Siberian *S. nitidum*, Clessin (Martini and Chemnitz, *Conch. Cal.*, Küster's new ed., 1877; cf. also Westerlund, "*Sibiriens Land-och Sötvatten-Mollusker*," K.Sv. Vet. Akad., Handl. 14, 1877). The latter species originally recorded from Jenissei, proves to be well separated from *S. corneum* not only in its shell (cardinals are straight, not curved as in *corneum*, and cardinal 4 covers only the rear half of 2, the hinge-plate is very narrow, the umbones usually inflated), but also in its anatomy. The best distinguishing character is offered by the nephridium, which lies as a paired mass between pericardium and posterior adductor, and is very easy to examine. Seen from above the dorsal parts of this organ have a different aspect in *S. corneum* and *S. nitidum*. In the former the dorsal surface of each nephridium has a U-shaped appearance, and both legs of the loop are separated by an interstice occupied by a small protruding part from the interior of the nephridium (the apical flexure of the inner or pericardial tube). In *S. nitidum* the two legs are entirely closed together, so that the inner parts of the nephridium are totally covered and do not protrude dorsally. Further, the dimensions of nephridium in relation to pericardium and posterior adductor are different from those of *S. corneum*, where each nephridium, seen from above, is short and broad, its length only slightly surpassing that of the adductor and that of the pericardium; its breadth is greater than half its length. These characters were constant in all forms of *S. corneum* examined. In *S. nitidum* the nephridium is twice as long as broad, and occupies twice the length of the adductor and twice that of the pericardium.

That the Swedish specimens are identical with the Siberian form was proved by a comparison with specimens from the original locality; the characters of the shells as well as of the soft parts are similar in both cases.

This interesting species has been found only in northern Sweden, north Lappland (whence it was mentioned by me in 1908 as *S. corneum* and *S. ovale*), south Lappland, and Jämtland (Coll. in Swed. State Mus.). It is entirely wanting in south Sweden, even in the deep and cool lakes where arctic relics are recorded (e.g. Vättern), and it therefore seems likely that *S. nitidum* is a rather late immigrant to the Swedish fauna, and that it has a direct eastern origin.